REMARKS

Reconsideration of this application, as amended, is respectfully requested.

THE CLAIMS

Claims 1-44 have been canceled, and new claims 45-48 have been added.

New independent claim 45 has been added to recite the features of the present invention disclosed in paragraphs [0017], [0019], and [0024] of the specification, whereby the cushion tire is formed from a rubber material without being provided with an airspace inside the tire and comprises a rib-lug-type tread pattern formed in an outer circumferential surface of the tire, a number of width direction tread grooves formed in the outer circumferential surface of the tire, and a number of holes formed in both side surfaces of the tire along a circumferential direction of the tire, wherein the number of the holes is identical to the number of the tread grooves, and each of the holes is disposed between adjacent tread grooves, wherein a small-sized groove is formed between each of the adjacent tread grooves in the outer circumferential surface of the tire, and wherein each of the small-sized grooves is formed parallel to the tread grooves and has a size smaller than a size of the tread grooves and a depth shallower than a depth of the tread grooves.

In addition, claim 46 has been added to recite the subject matter of canceled claim 18 as well as the feature of the present invention disclosed in paragraph [0032] of the specification whereby the additional grooves (11) absorb unevenness in rim dimensions of the wheel.

And claims 47-48 have been added to recite the subject matter of canceled claim 17 as well as the feature of the present invention disclosed in paragraph [0028] of the specification whereby projections are disposed at predetermined intervals along the circumferential direction of the tire.

No new matter has been added, and it is respectfully requested that new claims 45-48 be approved and entered.

THE PRIOR ART REJECTION

Claims 13-44 were all rejected under 35 USC 103 as being obvious in view of the combination of WO 96/05917 ("Haydon") with USP 4,226,273 ("Long et al") and WO 97/18959 ("Chandler et al"), and optionally further in view various combinations of USP 5,579,818 ("Hoppenheit et al"), JP 2000-25410 ("JP '410"), USP 6,298,890 ("Binsfeld"), USP 1,237,227 ("Swartz"), USP 4,560,551 ("Eger"), EP 28350 ("Europe '350"), and USP 1,328,632 ("Kremer").

These rejections, however, are all respectfully traversed with respect to new claims 45-48.

According to the present invention as recited in new independent claim 45, a rib-lug-type tread pattern is formed in the outer circumferential surface of the tire, and a small-sized groove is formed between each of the adjacent tread grooves in the circumferential surface of the tire. In addition, as recited in new independent claim 45, each of the small-sized grooves is formed parallel to the tread grooves and has a size smaller than a size of the tread grooves and a depth shallower than a depth of the tread grooves.

As a result, severe wearing due to the conventional "unsymmetrical wearing" phenomenon can be prevented even if the outer circumferential surface of tire is subjected to unsymmetrical wearing due to increasing of a travel distance because of long term use of the tire. By reducing wearing of the tire, the riding feel can be prevented from significantly worsening. And since each of the small-sized grooves has a depth shallower than a depth of the tread grooves, even if the small grooves and the holes formed to the side surface of the tire are disposed at corresponding positions, the distance between the hole and the small groove is not made narrow. Therefore, with the structure of the present invention as recited in new independent claim 45, cracks or other damage to that portion of the tire are prevented.

According to the present invention as recited in new claim 46, moreover, a number of additional grooves, each extending in a width direction of the tire, are formed on an inner circumferential surface of the tire along the circumferential direction of the tire such that they absorb unevenness in rim dimensions of a wheel. As a result, even if the rim dimensions are uneven due to manufacturing errors during production of the wheel, the grooves formed in the inner circumferential surface act as escape portions for the compressed rubber material which can absorb the unevenness in the rim dimensions. The fitting force of the tire to the rim can thus be advantageously increased when the tire is fitted to the rim of the wheel.

Still further, according to the present invention as recited in new claims 47 and 48, a number of projections are formed to project sideways on an inner circumferential portion of both of the side surfaces of the tire for abutting against rim flanges of the wheel, and the projections are disposed at predetermined intervals along the circumferential direction of the tire. As a result, the projections forcibly abut against the rim flange in the horizontal direction, and accordingly, the fitting force of the tire to the rim when fitting the tire to the rim of the wheel can be increased. Moreover, because a number of such projections

are provided, the tire can be provided with a number of holes without reducing the fitting force of the tire to the rim. Therefore, the amount of rubber material used for the tire can be reduced, thereby economically saving the rubber material.

It is respectfully submitted that none of the above described features or advantageous effects of the present invention as claimed in new claims 45-48 are disclosed, taught, or suggested in any of the cited references.

Accordingly, it is respectfully submitted that new independent claim 45 and claims 46-48 depending therefrom patentably distinguish over all of Haydon, Long et al, Chandler et al, Hoppenheit et al, JP '410, Binsfeld, Swartz, Eger, Europe '350, and Kremer, taken singly or in any combination, under 35 USC 102 as well as under 35 USC 103.

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In view of the foregoing, entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,

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